

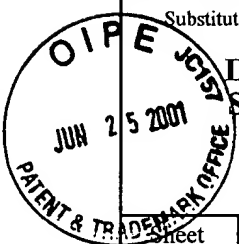
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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	08/873,978
Filing Date	June 12, 1997
First Named Inventor	KAYYEM et al.
Group Art Unit	1631
Examiner Name	Marschel, A.
Attorney Docket Number	A-63761-1/RFT/RMS/RMK

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
AM ✓	1	4,704,193		Bowers et al.	11/1987	
✓	2	4,945,045		Forrest et al.	07/1990	
✓	3	5,089,112		Skotheim et al.	02/1992	
✓	4	5,180,968		Bruckenstein et al.	01/1993	
✓	5	5,356,786		Heller et al.	10/1994	
✓	6	5,391,272		O'Daly et al.	02/1995	
✓	7	5,436,161		Bergstrom et al.	07/1995	
✓	8	5,443,701		Willner et al.	08/1995	
✓	9	5,242,828		Bergstrom et al.	9/1993	
✓	10	5,552,270		Khrapko et al.	9/1996	
✓	11	5,705,348		Meade et al.	01/1998	
✓	12	5,741,700		Ershov et al.	4/1998	
✓	13	5,756,050		Ershov et al.	5/1998	
✓	14	5,770,369		Meade et al.	06/1998	
✓	15	5,770,721		Ershov et al.	6/1998	

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FOREIGN PATENT DOCUMENTS								
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		Office ³	Number ⁴	Kind Code ² (if known)				
AM ✓	16	WO	86/05815	A1	Genetics International Inc.	3/1985		
✓	17	WO	90/05303	A1	Pharmacia AB	05/1990		
✓	18	WO	95/34816	A1	Pharmacia Biosensor AB	12/1995		
✓	19	WO	96/10178	A1	Pharmacia Biosensor AB	04/1996		
✓	20	WO	97/27329	A1	Univ. of Chicago	7/1997		
✓	21	WO	97/41425	A1	Pence Inc.	11/1997		
✓	22	WO	98/20162			05/1998		
✓	23	WO	98/27229	A1	Univ. of Chicago	6/1998		
✓	24	WO	98/28444	A2	Univ. of Chicago	7/1998		
✓	25	WO	98/57159	A1	Clinical Micro Systems	6/1997		

Examiner Signature	<i>Arin Marschel</i>	Date Considered	2-22-02
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

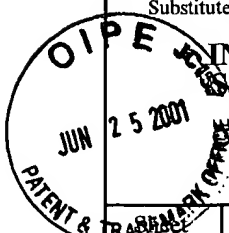
¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English Language Translation is attached.

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Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	08/873,978
				Filing Date	June 12, 1997
				First Named Inventor	KAYYEM et al.
				Group Art Unit	1631
				Examiner Name	Marschel, A.
2	of	4	Attorney Docket Number	A-63761-1/RFT/RMS/RMK	

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
AM ✓	26	5,795,453		Gilmartin	08/1998	
✓	27	5,780,234		Meade et al.	07/1998	
✓	28	5,824,473		Meade et al.	10/1998	
✓	29	5,851,772		Mirzabekov et al.	12/1998	
✓	30	5,952,172		Meade et al.	09/1999	
✓	31	6,060,023		Maracas	05/2000	
✓	32	6,060,327		Keen	05/2000	
✓	33	6,096,273		Kayyem et al.	08/2000	
✓	34	6,107,080		Lennox	08/2000	
✓	35	6,071,699		Meade et al.	06/2000	
✓	36	6,087,100		Meade et al.	07/2000	
✓	37	6,177,250		Meade et al.	01/2001	
✓	38	6,180,352		Meade et al.	01/2001	
✓	39	6,238,870		Meade et al.	05/2001	
✓	40	6,200,761		Meade et al.	03/2001	

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FOREIGN PATENT DOCUMENTS								
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		Office ³	Number ⁴	Kind Code ² (if known)				
AM ✓	41	WO	99/67425	A2	Clinical Micro Sensors, Inc.	12/1999		
AM ✓	42	WO	99/14596	A1	AB Sangtec Medical	03/1999		

Examiner Signature	<i>Arli Marschel</i>	Date Considered	2-22-02
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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English Language Translation is attached.

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Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	08/873,978
		Filing Date	June 12, 1997
		First Named Inventor	KAYYEM et al.
		Group Art Unit	1631
		Examiner Name	Marschel, A.
Sheet 3 of 4	Attorney Docket Number	A-63761-1/RFT/RMS/RMK	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
AM	43	Blonder et al., "Three-dimensional Redox-Active layered Composites of Au-Au, Ag-Ag and Au-Ag Colloids," Chem. Commun. 1393-1394 (1998).	
✓	44	Boon et al., "Mutation Detection by Electrocatalysis at DNA- Modified Electrodes," Nature Biotechnology, 18: 1096-1100 (October 2000).	
✓	45	Chee et al., "Voltammetry of defect sites at a self-assembled monolayer on a gold surface," J. of Electroanalytical Chemistry, 453: 9-17 (1998).	
✓	46	Drobyshev, A. et al., "Sequence Analysis by Hybridization with Oligonucleotide Microchip: Identification of β -thalassemia Mutations," Gene, 188:45-52 (1997).	
✓	47	Dubiley, S. et al., "Fractionation, phosphorylation and Ligation on Oligonucleotide Microchips to Enhance Sequencing by Hybridization," Nucleic Acids Research, 25(12):2259-2265 (1997).	
✓	48	Elghanian et al., "Selective Colorimetric Detection of Polynucleotides Based on the Distance-Dependent Optical Properties of Gold Nanoparticles," Science, 277:1078-1081 (1997).	
✓	49	Fotin, A. et al., "Parallel Thermodynamic Analysis of Duplexes on Oligodeoxyribonucleotide Microchips," Nucleic Acids Research, 216(6):1515-1521 (1998).	
✓	50	Guschin, D. et al., "Manual Manufacturing of Oligonucleotide, DNA, and Protein Microchips," Analytical Biochemistry, 250:203-211 (1997).	
✓	51	Guschin, D. et al., "Oligonucleotide Microchips as Genosensors for Determinative and Environmental Studies in Microbiology," 63(6):2397-2402 (1997).	
✓	52	Hess et al., "Base Pairing Properties of Novel Transition Metal PNA Conjugates," Journal of Inorganic Biochemistry, 74:161 (1999).	
✓	53	Hsueh et al., "Electrochemically Directed Self-Assembly on Gold," Angew. Chem. Int. Ed. 39(7): 1228-1230 (2000).	
✓	54	Kamat et al., J. Phys. chem., 93(4):1405-1409 (1989).	
✓	55	Korri-Youssefi et al., "Toward Bioelectronics: Specific DNA Recognition Based on an Oligonucleotide-Functionalized Polypyrrole," J. Am. Chem. Soc., 119(31):7388-7389 (1997).	
✓	56	Livshits, M. et al., "Theoretical Analysis of the Kinetics of DNA Hybridization with Gel-Immobilized Oligonucleotides," Biophysical Journal, 71:2795-2801 (1996).	
✓	57	Mirkin et al., "A DNA-based Method for Rationally Assembling Nonoparticles into Macroscopic Materials," Nature, 382:607-609 (1996).	

Examiner Signature	<i>A. Marschel</i>	Date Considered	2-22-02
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Sheet 4

of	4
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Application Number	08/873,978
Filing Date	June 12, 1997
First Named Inventor	KAYYEM et al.
Group Art Unit	1631
Examiner Name	Marschel, A.
Attorney Docket Number	A-63761-1/RFT/RMS/RMK

[illegible]

Arden Marshall

2-22-02

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